

FULLY INTERCHANGEABLE WITH HF-125

R.F. Power Amplifier, Oscillator, A.F. Power Amplifier, Modulator

MAXIMUM RATINGS AND TYPICAL OPERATING CONDITIONS

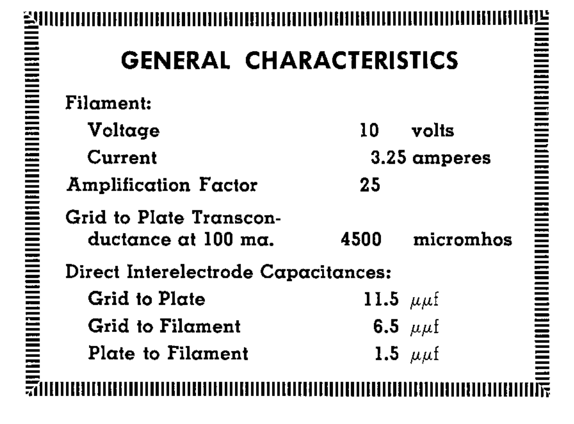
A.F. Power Amplifier and Modulator—Class B

	Maximum Rating per Tube	Typical Operation Two Tubes	
A.C. Filament Voltage	. .	10	10
D.C. Plate Voltage	1500	1250	1500
D.C. Grid Voltage	. .	−45	−52
Load Resistance (per tube) (ohms)	. .	2250	2750
Effective Load Resistance (Plate to Plate) (ohms)	. .	9000	11000
Zero Signal Plate Current (ma.)	. .	26	30
Peak A.F. Grid to Grid Voltage	. .	300	304
Max. Signal D.C. Plate Current (ma.)	175	320	320
Max. Signal Plate Input (watts)	250	400	480
Plate Dissipation (watts)	100	. .	. .
Max. Signal Driving Power (Approx.) (watts)	. .	7	5.5
Max. Signal Plate Power Output (watts)	. .	280	340

R.F. Power Amplifier—Class B—Telephony

(Carrier conditions for use with modulation factor of 1.0)

	Maximum Rating per Tube	Typical Operation One Tube	
A.C. Filament Voltage	. .	10	10
D.C. Plate Voltage	1500	1250	1500
D.C. Grid Voltage	. .	−37	−48
Peak R.F. Grid Voltage	. .	85	84
D.C. Plate Current (ma.)	150	116	100
Plate Input (watts)	150	145	150
Plate Dissipation (watts)	100	95	98
D.C. Grid Current (Approx.) (ma.)	. .	4.5	3
Driving Power at Peak Modulation (Approx.) (watts)	. .	3	2
Plate Power Output (watts)	. .	50	52
Frequency Limit for Above Operation (megacycles)	30	30	30



GENERAL CHARACTERISTICS

Filament:		
Voltage	10	volts
Current	3.25	amperes
Amplification Factor	25	
Grid to Plate Transconductance at 100 ma.	4500	micromhos
Direct Interelectrode Capacitances:		
Grid to Plate	11.5	μμf
Grid to Filament	6.5	μμf
Plate to Filament	1.5	μμf

Plate Modulated R.F. Power Amplifier Class C—Telephony

(Carrier conditions for use with modulation factor of 1.0)

	Maximum Rating per Tube	Typical Operation One Tube	
A.C. Filament Voltage	. .	10	10
D.C. Plate Voltage	1250	1000	1250
D.C. Grid Voltage	−400	−135	−160
Peak R.F. Grid Voltage	. .	265	300
D.C. Plate Current (ma.)	175	160	167
Plate Input (watts)	210	160	208
Plate Dissipation (watts)	85	40	48
D.C. Grid Current (Approx.) (ma.)	60	18	19
Driving Power (Approx.) (watts)	. .	4.5	5
Plate Power Output (watts)	. .	120	160
Frequency Limit for Above Operation (megacycles)	30	40	30
F.C.C. Broadcast Rating (watts)	125	. .	125

R.F. Power Amplifier or Oscillator—Class C Telegraphy

	Maximum Rating per Tube	Typical Operation One Tube	
A.C. Filament Voltage	. .	10	10
D.C. Plate Voltage	1500	1250	1500
D.C. Grid Voltage	−400	−160	−200
Peak R.F. Grid Voltage	. .	300	340
D.C. Plate Current (ma.)	175	175	170
Plate Input (watts)	260	219	255
Plate Dissipation (watts)	100	49	55
D.C. Grid Current (Approx.) (ma.)	60	15	12
Driving Power (Approx.) (watts)	. .	4	3.8
Plate Power Output (watts)	. .	170	200
Frequency Limit for Above Operation (megacycles)	30	30	30

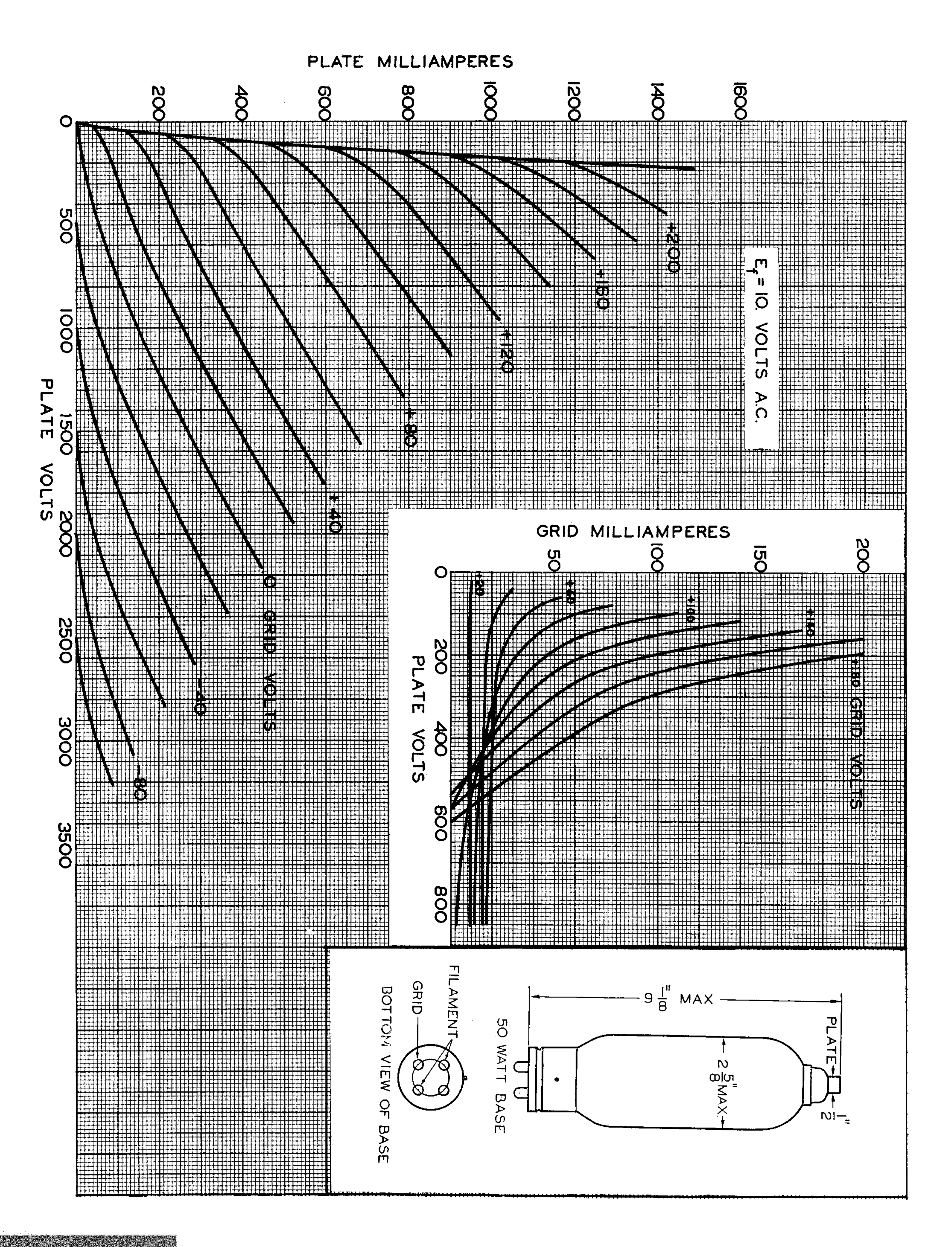


PLATE MILLIAMPERES
200
400
600
800
1000
1200
1400
1600
0
500
1000
1500
2000
2500
3000
3500
PLATE VOLTS
+200
+160
+120
+80
+40
0 GRID VOLTS
-40
-80
E_f = 10. VOLTS A.C.
GRID MILLIAMPERES
50
100
150
200
0
200
400
600
800
PLATE VOLTS
+20
+40
+60
+100
+140
+180 GRID VOLTS
9 1/8" MAX
PLATE
2 5/8" MAX.
1/2"
50 WATT BASE
FILAMENT
GRID
BOTTOM VIEW OF BASE